

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the instant application.

1.-48. (Canceled)

49. (Currently amended) An isolated toxin that is active against ~~insects~~European corn borer, wherein said toxin ~~comprises an amino acid sequence that:~~

- a) ~~has at least 75% identity with~~comprises amino acids 661-788 of SEQ ID NO: 2; or
- b) comprises an amino acid sequence that has at least 91% identity with SEQ ID NO: 2;
or
- c) is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence that has a complement that hybridizes to nucleotides 1981-2367 of SEQ ID NO: 1 in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C. with washing in 0.1XSSC, 0.1% SDS at 65°C.; or
- d) is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence that is isocoding with the nucleotide sequence of (c); or
- e) is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence that has at least 93% sequence identity with SEQ ID NO: 1.

50. (Currently amended) The isolated toxin according to claim 49, wherein said toxin comprises ~~an amino acid sequence which has at least 75% identity with~~ amino acids 661-788 of ~~the amino acid sequence of~~ SEQ ID NO: 2.

51.-54. (Canceled)

55. (Currently amended) The isolated toxin according to claim 49 comprising an amino acid sequence which has at least 91% identity with ~~the amino acid sequence set forth in~~ SEQ ID NO: 2.

56. (Currently amended) The isolated toxin according to claim 49 comprising an amino acid sequence which has at least 95% identity with ~~the amino acid sequence set forth in~~ SEQ ID NO: 2.

57. (Currently amended) The isolated toxin according to claim 49 comprising an amino acid sequence which has at least 97% identity with ~~the amino acid sequence set forth in~~ SEQ ID NO: 2.

58. (Currently amended) The isolated toxin according to claim 49 comprising an amino acid sequence which has at least 99% identity with ~~the amino acid sequence set forth in~~ SEQ ID NO: 2.

59. (Currently amended) The isolated toxin according to claim 49 comprising the amino acid sequence set forth in SEQ ID NO: 2, SEQ ID NO: ~~[[12]]~~11, or SEQ ID NO: ~~[[33]]~~32.

60. (Currently amended) The isolated toxin according to claim 59 comprising ~~the amino acid sequence set forth in~~ SEQ ID NO: 2.

61. (Currently amended) The isolated toxin according to claim 59 comprising ~~the amino acid sequence set forth in~~ SEQ ID NO: ~~[[12]]~~11.

62. (Currently amended) The isolated toxin according to claim 59 comprising ~~the amino acid sequence set forth in~~ SEQ ID NO: ~~[[33]]~~32.

63. (Currently amended) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence that has a complement that hybridizes to nucleotides 1981-2367 of SEQ ID NO: 1 in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C. with washing in 0.1XSSC, 0.1% SDS at 65°C.

64. (Currently amended) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence that is isocoding with a nucleotide sequence having a compliment that hybridizes to nucleotides 1981-2367 of SEQ ID NO: 1 in 7% sodium dodecyl sulfate (SDS), 0.5 M NaPO₄, 1 mM EDTA at 50°C. with washing in 0.1XSSC, 0.1% SDS at 65°C.

65.-68. (Canceled)

69. (Original) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising nucleotides 1981-2367 of SEQ ID NO: 1 or SEQ ID NO: 3.

70. (Original) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence with at least 93% sequence identity with SEQ ID NO: 1.

71. (Original) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence with at least 95% sequence identity with SEQ ID NO: 1.

72. (Original) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising a nucleotide sequence with at least 99% sequence identity with SEQ ID NO: 1.

73. (Currently amended) The isolated toxin according to claim 49, wherein said toxin is produced by the expression of a nucleic acid molecule comprising ~~the nucleotide sequence set forth in~~ SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: [[11]]10, SEQ ID NO: 31, or SEQ ID NO: [[32]]33, ~~or SEQ ID NO: 34~~.

74. (Original) The isolated toxin according to claim 73, wherein said toxin is produced by the expression of a nucleic acid molecule comprising SEQ ID NO: 1.

75. (Original) The isolated toxin according to claim 73, wherein said toxin is produced by the expression of a nucleic acid molecule comprising SEQ ID NO: 3.

76. (Currently amended) The isolated toxin according to claim 73, wherein said toxin is produced by the expression of a nucleic acid molecule comprising SEQ ID NO: ~~[[11]]~~10.

77. (Currently amended) The isolated toxin according to claim 73, wherein said toxin is produced by the expression of a nucleic acid molecule comprising SEQ ID NO: ~~[[32]]~~31.

78. (Currently amended) The isolated toxin according to claim 73, wherein said toxin is produced by the expression of a nucleic acid molecule comprising SEQ ID NO: ~~[[34]]~~33.

79. (Canceled)

80. (Currently amended) The isolated toxin according to claim ~~[[79]]~~49, wherein said toxin is active against a lepidopteran insect ~~[[is]]~~selected from the group consisting of *Ostrinia nubilalis* ~~(European corn borer)~~, *Plutella xylostella* (diamondback moth), *Spodoptera frugiperda* (fall armyworm), *Agrotis ipsilon* (black cutworm), *Helicoverpa zea* (corn earworm), *Heliothis virescens* (tobacco budworm), *Spodoptera exigua* (beet armyworm), *Pectinophora gossypiella* (pink boll worm), *Trichoplusia ni* (cabbage looper), *Cochyles hospes* (banded sunflower moth), and *Homoeosoma electellum* (sunflower head moth).

81.-89. (Canceled)

90. (Currently amended)) An insecticidal composition comprising ~~an effective insect-controlling amount of the~~ toxin according to claim 49.

91.-94. (Canceled)

95. (Original) A method of controlling insects, comprising delivering to said insects an effective amount of the toxin according to claim 49.

96. (Canceled)

97. (Currently amended) The method of claim [[96]]95, wherein said toxin is active against lepidopteran insects are selected from the group consisting of: ~~*Ostrinia nubilalis* (European corn borer)~~, *Plutella xylostella* (diamondback moth), *Spodoptera frugiperda* (fall armyworm), *Agrotis ipsilon* (black cutworm), *Helicoverpa zea* (corn earworm), *Heliothis virescens* (tobacco budworm), *Spodoptera exigua* (beet armyworm), *Pectinophora gossypiella* (pink boll worm), *Trichoplusia ni* (cabbage looper), *Cochyles hospes* (banded sunflower moth), and *Homoeosoma electellum* (sunflower head moth).

98. (Original) The method of claim 95, wherein said toxin is delivered to the insects orally.

99.-120. (Canceled)